Fig. 1 - in situ photographs of untreated, Ad-ßgal treated and Ad-TIMP-2 treated animals after 5 weeks;

Fig. 2 - graft showing tumor growth after treatment.

Description of the Preferred Embodiment--.

IN THE CLAIMS

Please amend the claims as follows. Claims 8, 11, 13, 15, 17, 31, and 49-51 are amended. This amendment provides a marked-up copy of the claims as amended in the Prelimimary amendment filed with the application. Please note that claims 50 and 51 were not amended in the first preliminary amendment. A marked-up copy is also enclosed.

1. Agent for gene-therapeutic prophylaxis and therapy of tumour diseases, entailing a
- vector in the sense of a gene transfer vehicle
- enhancer/promoter
- transgene

with at least one of the components stated being aimed at the impregnation of normal tissue.

2. Application of the agent according to Claim 1 for gene-therapeutic prophylaxis and therapy of tumour diseases, entailing a
- vector in the sense of a gene transfer vehicle
- enhancer/promoter
- transgene

with at least one of the components stated being aimed at the impregnation of normal tissue.

3. Application of a gene transfer vector entailing a transgene in operative connection with an enhancer/promoter for the production of an agent for the gene-therapeutic prophylaxis and therapy of tumour diseases by administration on normal tissue.

4. Method for the gene-therapeutic prophylaxis and therapy of tumour diseases wherein an agent entailing a
- vector in the sense of a gene transfer vehicle
- enhancer/promoter
- transgene

with at least one of the components stated being aimed at the impregnation of normal tissue, is administered to a subject requiring a prophylactic or therapeutic tumour treatment in such a way that the vector is essentially absorbed by normal cells.

N.K.

5. Agent according to Claim 1 with a promoter and/or enhancer regulated by transcription factors active in normal tissue.

6. Agent according to Claim 5 containing
the CMV promoter or the SV 40 promoter or the RSV promoter,
or liver-specific promoters such as the albumin promoter or lung-specific promoters or brain tissue-specific promoters or bone-specific promoters or promoters active in potential metastatic target organs or organs of the genesis of primary tumours.

7. Agent according to Claim 5 containing
an enhancer/promoter activated by addition of an applicable substance.

B4 8. (amended) Agent according to Claim 5 which is a tetracyclin-dependent or a steroid hormone dependent promoter.

9. Agent according to Claim 1 containing transgenes for substances
- which limit the growth of the tumour
- destroy the tumour
- protect the normal tissue against tumour invasion.

N.E.

10. Agent according to Claim 1 containing genes of metalloprotease inhibitors

B5 11. (amended) Agent according to Claim 1 containing an anti-tumoral transgene coding for:
TIMP-1 or TIMP-2

N.E. 12. Agent according to Claim 1 containing a protease-inhibitory transgene coding for:
TIMP-3 or TIMP-4 or PAI-1 or PAI-2.

B6 13. (amended) Agent according to Claim 11 containing a modified transgene, the anti-tumoral effect of which has been reinforced by this modification.

N.E. 14. Agent according to Claim 13 which contains a relevant transgene C-terminal trunked TIMP-2.

B7 15. (amended) Agent according to Claim 1 containing a transgene of the extra-cellular matrix.

N.E. 16. Agent according to Claim 15 containing at least two polypeptide chains of collagen or fibronectin or laminin or

N.E. genes, products of which are responsible for the synthesis of non-protein components of the ECM.

B8 17. (amended) Agent according to Claim 15 containing a transgene of the extra-cellular matrix modified in such a way that it is difficult to decompose or is decomposable.

18. Agent according to Claim 1 containing a transgene coding for an adhesion molecule.

19. Agent according to Claim 18 in which the adhesion molecule in question is claudin or occludin or a cadherin or an integrin or a gene from the immunoglobulin superfamily, a selectin or a muzin.

N.E. 20. Agent for prophylaxis and treatment of tumour diseases containing an anti-tumoral transgene or sequences thereof which has been provided with a membrane anchor sequence.

21. Application of a gene transfer vector for production of an agent for prophylaxis and treatment of tumour diseases containing an anti-tumoral transgene or sequences thereof which has been provided with a membrane anchor sequence.

22. Method for prophylaxis and treatment of tumour diseases in which an anti-tumoral transgene or sequences thereof which has been provided with a membrane anchor sequence is transferred.

23. Agent according to Claim 20 containing a suicide gene or otherwise chemotherapeutically effective gene as the transgene in question

24. Agent according to Claim 23 in which the transgene in question is cytosin desaminase or active part sequences thereof or nitroreductase or active part sequences thereof.

25. Agent according to Claim 1 in which the vector is a virus.

N.E. 26. Agent according to Claim 25 in which the virus is a first-generation adenovirus or an adeno-associated virus or a minimal adenovirus or an HSV or a lentivirus.

27. Agent according to Claim 26 in which the virus is a lentivirus/minimal adenovirus hybrid.

28. Agent according to Claim 27 in which the vector is a non-human mammal adenovirus.

29. Agent according to Claim 1 in which the vector is not a virus.

30. Agent according to Claim 29 in which the vector is a liposomal formulation or carrier proteins are used.

B9 31. (amended) Agent according to Claim 25, in which the surface is modified in such a way that a specific gene transfer into the normal tissue is achieved.

32. Agent according to Claim 1 containing a minimal adenovirus and TIMP-2.

N.E. 33. Agent according to Claim 1 containing a minimal adenovirus and C-terminal truncated TIMP-2.

34. Agent according to Claim 1 containing an AAV and TIMP-2

35. Agent according to Claim 1 containing a first-generation adenovirus and TIMP-2.

36. Agent according to Claim 1 containing a lentivirus/minimal adenovirus hybrid and TIMP-2.

37. Agent according to Claim 1 containing an AAV and C-terminal truncated TIMP-2.

38. Agent according to Claim 1 containing a minimal adenovirus and E-cadherin.

39. Agent according to Claim 1 containing an AAV and E-cadherin.

40. Agent according to Claim 1 containing a minimal adenovirus and at least two polypeptide chains of the collagen.

41. Agent according to Claim 1 for gene transfer into the hepatic tissue.

42. Agent according to Claim 1 for therapy and prophylaxis of liver metastases.

43. Agent according to Claim 1 for therapy of brain tumours.

44. Agent according to Claim 1 for therapy of lung metastases.

45. Agent according to Claim 1 containing the HNFAlbumin enhancer/promoter, AAV and TIMP-1.

46. Agent according to Claim 1 containing an enhancer/promoter, activated by a substance foreign to the body and containing at least two polypeptide chains of the collagen.

N.B. 47. Agent according to Claim 1 containing a liver-specific promoter, an AAV and a metalloprotease inhibitor.

48. Agent according to Claim 1 containing a liver-specific promoter, a minimal adenovirus and a metalloprotease inhibitor.

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49. (amended) Agent according to Claim 1 containing a liver-specific promoter and a minimal adenovirus.

B10 50. (amended) Agent according to Claim 1 containing a liver-specific promoter and an AAV.

51. (amended) Agent according to Claim 1 containing a liver-specific promoter and a lentivirus/minimal adenovirus hybrid.

REMARKS

The above amendments were made to place the application into proper United States Patent Format.

Respectfully Submitted,

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